

57



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,989	04/12/2001	Tetsuya Shibata	55818 (70801)	2084
21874	7590	06/20/2005	EXAMINER	
EDWARDS & ANGELL, LLP			MENBERU, BENIYAM	
P.O. BOX 55874			ART UNIT	
BOSTON, MA 02205			PAPER NUMBER	

2626

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/833,989	SHIBATA ET AL.	
	Examiner	Art Unit	
	Beniyam Menberu	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/2005</u> | 6) <input type="checkbox"/> Other: ____ |

Response to Arguments

1. Applicant's arguments filed January 20, 2005, have been fully considered but they are not persuasive. Mishima et al disclose the structure of the memory as time elapses during memory full state to show that memory capacity increases as time elapses which implies the concept of a timer section for timing the elapse of a waiting period (Figure 29-31; column 19, lines 49-67; column 20, lines 1-26). Further Mishima discloses an internal timer which is used to time the routines performed (column 21, lines 12-35).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6449056 to Mishima et al.

Regarding claim 1, Mishima et al disclose a communication system serving as a transmitter terminal and a receiver terminal for communications with a second communication system via a communication line, the communication system comprising:

a storage section for data storage (Figure 3, reference 30; column 9, lines 30-35);

a communication section for data communications, the communication section being adapted for reception and transmission of data and size information indicative of the size of the data with

Art Unit: 2626

respect to the second communication system (column 9, lines 32-35; The capacity or size of image data "CAPA(n)" is transmitted (column 16, lines 31-36));

a detection section for detecting a free space in the storage section (column 14, lines 2-25);

a comparing section for comparing the data size contained in the size information with the size of the free space in the storage section (column 14, lines 56-64);

a calculating section for, if the storage section is short of free space for accommodation of the data size, calculating a waiting period required for recovery from the shortage of the free space in the storage section (Figure 13, reference 312; column 15, lines 62-67; column 16, lines 13-24);

a timer section for timing the lapse of the waiting period (Mishima et al disclose the structure of the memory as time elapses during memory full state to show that memory capacity increases as time elapses which implies the concept of a timer section for timing the elapse of a waiting period (Figure 29-31; column 19, lines 49-67; column 20, lines 1-26). Further Mishima discloses an internal timer which is used to time the routines performed (column 21, lines 12-35, lines 29-35))

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 5, 6, 8, 9, 10, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu.

Regarding claim 2, Mishima et al teach all the limitations of claim 1. Mishima et al disclose a comparing section for comparing free memory size with data size(column 14, lines 56-64). However Mishima et al does not disclose a communication system as set forth in claim 1, wherein, when the communication system functions as the receiver terminal, the communication section requests the second communication system to transmit the data and the size information thereto, and receives the size information from the second communication system, wherein, if the size of the free space in the storage section is smaller than the data size contained in the size information, the communication section gives information of a reception disabled state thereof and the waiting period to the second communication system, and causes the second communication system to transmit the data thereto after the lapse of the waiting period.

Shimizu discloses a communication system as set forth in claim 1, wherein, when the communication system functions as the receiver terminal, the communication section requests the second communication system to transmit the data and the size information thereto (Shimizu, column 10, lines 35-40;column 10, lines 25-30), and receives the size information from the second communication system (Shimizu, column 10, lines 52-56; figure 10, reference (3)),

the communication section gives information of a reception disabled state thereof and the waiting period to the second communication system (Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes

Art Unit: 2626

or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68; column 11, lines 1-2).), and causes the second communication system to transmit the data thereto after the lapse of the waiting period (column 2, lines 63-68; column 3, lines 1-3).

Mishima et al and Shimizu are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the data transmission and waiting method of Shimizu with the communication system of Mishima et al to implement disabled state and waiting period during data communication.

The motivation to combine the reference is clear because a timer as taught by Shimizu is necessary to determine the duration of a waiting period in the case of a period where there is not enough memory to perform a communication task.

Regarding claim 3, Mishima et al in view of Shimizu teach all the limitations of claim 2. Further Shimizu discloses a system wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section gives information of the reception disabled state thereof to the external terminal, and is prohibited from data reception (Shimizu discloses an interruption flag for setting interruption on or off. Thus image reception during waiting time can cause interruption or forced to wait until wait time expires (column 13, lines 28-39)).

Regarding claim 5, Mishima et al teach all the limitations of claim 1. Further Mishima et al in view of Shimizu disclose a system wherein, when the communication system functions as the transmitter terminal, the communication section receives a request for transmission of the data and the size information from the second communication system and, in response to the request, transmits the size information to the second communication system (Shimizu; column 10, lines 24-30), wherein, if a storage section of the second communication system is short of free space (Mishima et al ; column 15, lines 38-50), the communication section receives from the second communication system a waiting period required for recovery from the shortage of the free space in the storage section of the second communication system (Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68; column 11, lines 1-2)), disconnects the communication line and, after the lapse of the waiting period, establishes a line connection again to the second communication system to transmit the data to the second communication system (Shimizu; column 2, lines 63-68; column 3, lines 1-3).

Regarding claim 6, Mishima et al in view of Shimizu teach all the limitations of claim 5. Further Mishima et al in view of Shimizu disclose a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a

Art Unit: 2626

size such that the data transmission can be completed before the lapse of the waiting period (Shimizu: column 12, lines 11-21).

Regarding claim 8, Mishima et al teach all the limitations of claim 1. Further Mishima et al disclose that the device can be a facsimile machine (column 28, lines 9-13).

Regarding claim 9, Mishima et al teach all the limitations of claim 1. Further Mishima et al disclose a system which is an information processing system (column 2, lines 59-65) having a communication function (column 9, lines 32-36).

Regarding claim 10, Mishima et al in view of Shimizu teach all the limitations of claim 2 or 5. Further Shimizu discloses a communication system as set forth in claim 2 or 5, wherein the data is image data (column 1, lines 5-8).

Regarding claim 11, Mishima et al in view of Shimizu teach all the limitations of claim 2 or 5. Further Mishima et al disclose a communication system as set forth in claim 2 or 5, wherein the data is an E-mail (Mishima et al disclose an Ethernet connection for a system (column 17, lines 64-67; Figure 25, reference 3, 4).

Regarding claims 12 and 13, Mishima et al disclose a method and program (Mishima et al; column 9, lines 8-12; Shimizu column 10, lines 15-17) to implement the following processes:

causing a detection section of the receiver terminal to detect a free space in a storage section of the receiver terminal (Mishima et al; column 14, lines 2-25);

causing a comparing section of the receiver terminal to compare the data size contained in the size information with the size of the free space in the storage section of the receiver terminal (Mishima et al; column 14, lines 56-64);

if the storage section of the receiver terminal has a sufficient free space for accommodation of the data size, causing the transmitter terminal to transmit the data to the communication section of the receiver terminal (Mishima et al disclose that when a digital copier has enough free memory, it can be selected to receive printing data (column 26, lines 38-50));

and if the storage section of the receiver terminal is short of free space for accommodation of the data size, causing a calculating section of the receiver terminal to calculate a waiting period required for recovery from the shortage of the free space in the storage section (Mishima et al; Figure 13, reference 312; column 15, lines 62-67; column 16, lines 13-24). However Mishima et al does not disclose method/program for

causing a communication section of the receiver terminal to request transmission of data and size information indicative of the size of the data from the transmitter terminal;

causing the communication section of the receiver terminal to give information of a reception disabled state of the receiver terminal and the waiting period to the transmitter terminal,

causing a timer section of the receiver terminal to time the lapse of the waiting period, and causing the transmitter terminal to transmit the data to the communication section of the receiver terminal after the lapse of the waiting period.

Shimizu discloses a method for :

causing a communication section of the receiver terminal to request transmission of data and size information indicative of the size of the data from the transmitter terminal (Shimizu, column 10, lines 35-40; column 10, lines 25-30);

causing the communication section of the receiver terminal to give information of a reception disabled state of the receiver terminal and the waiting period to the transmitter terminal(Shimizu discloses a system for communication using commands of different types as shown in Figure 10. In figure 10, reference (3) (type 3), the receiving terminal responds to the receivable bit by setting the 32nd bit to a yes or no. A response of no means it is unavailable for reception (column 10, lines 57-64). The waiting time is shown in bits 15-18th bit for the unavailable terminal (column 10, lines 67-68;column 11, lines 1-2).), causing a timer section of the receiver terminal to time the lapse of the waiting period, and causing the transmitter terminal to transmit the data to the communication section of the receiver terminal after the lapse of the waiting period (column 2, lines 63-68; column 3, lines 1-3).

Mishima et al and Shimizu are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the data transmission and waiting method of Shimizu with the communication system of Mishima et al to implement disabled state and waiting period during data communication.

The motivation to combine the reference is clear because a timer as taught by Shimizu is necessary to determine the duration of a waiting period in the case of a period where there is not enough memory to perform a communication task and to communicate information regarding the transmission of data.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu further in view of U.S. Patent No. 5216520 to Omura et al.

Regarding claim 4, Mishima et al in view of Shimizu teach all the limitations of claim 2. Mishima et al in view of Shimizu does not disclose a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period.

Omura et al discloses a system wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period (Omura et al discloses a system wherein during reception mode a transmission mode can be performed (Figure 11a, 11b). In Figure 11b a timer is started at step S712 to prevent reception until it counts to a certain value (column 7, lines 23-28). Once the timer starts the transmission can occur until line disconnection (Figure 11b, reference S715).).

Mishima et al and Shimizu and Omura et al are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of

Art Unit: 2626

ordinary skill in the art to combine the transmission capability during reception mode as taught by Omura et al with the combined communication system of Mishima et al in view of Shimizu to perform transmission during the reception mode.

The motivation to combine the reference is clear because it would be efficient to perform transmission during the reception waiting period to increase the productivity of the communication system.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6449056 to Mishima et al in view of U.S. Patent No. 4573083 to Shimizu further in view of U.S. Patent No. 5055945 to Oguma et al.

Regarding claim 7, Mishima et al in view of Shimizu teach all the limitations of claim 5. Mishima et al in view of Shimizu does not disclose a communication system, wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section receives data from the external terminal on condition that the data from the external terminal has a size such that the data reception can be completed before the lapse of the waiting period.

Oguma et al disclose a communication system, wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section receives data from the external terminal on condition that the data from the external terminal has a size such that the data reception can be completed before the lapse of the waiting period (Oguma discloses a communication system that transmits continuously with the capability of inserting

Art Unit: 2626

reception of data in between the transmission mode wherein the reception is done within a predetermined amount of time (column 1, lines 45-62).).

Mishima et al, Shimizu, and Oguma et al are combinable because they are in the similar problem area of communication systems.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the system of Oguma et al that performs reception of data during transmission with the combined system of Mishima et al in view of Shimizu to implement reception during the transmission mode.

The motivation to combine the reference is clear because Oguma et al disclose that the reception during transmission mode can be used during emergency (column 1, lines 58-61).

Other Prior Art Cited

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5991053 to Matsuo et al disclose facsimile apparatus.

U.S. Patent No. 5473674 to Maeda disclose facsimile apparatus with auto-dialing function.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Beniyam Menberu

BM

06/12/2005


SCOTT ROGERS
PRIMARY EXAMINER